

CLAIMS

1. A coordinate input apparatus, comprising:
a plurality of X interconnecting lines and a
5 plurality of Y interconnecting lines disposed to
intersect with each other in a matrix fashion;
a closed-loop forming circuit for being
electrically connected with the X interconnecting
lines or the Y interconnecting lines so as to
10 switchably connect a predetermined number of the X
interconnecting lines or a predetermined number of the
Y interconnecting lines to form a closed loop; and
a detection circuit for detecting a signal
outputted from the closed loop in response to a
15 position indicator for indicating a position in a
coordinate input area where the X interconnecting
lines and the Y interconnecting lines are disposed in
the matrix fashion;
wherein the closed loop is a multiple closed
20 loop.

2. An apparatus according to Claim 1, wherein the
closed loop includes a switch circuit for selecting
first to four X interconnecting lines from the
25 plurality of X interconnecting lines so that:
a first terminal of the first X
interconnecting line is connected with a first

terminal of the second X interconnecting line,

a first terminal of the third X interconnecting line is connected with a first output terminal,

5 a second terminal of the third X interconnecting line is connected with a second terminal of the first X interconnecting line,

a first terminal of the fourth X interconnecting line is connected with a second output terminal, and

a second terminal of the fourth X interconnecting line is connected with a second terminal of the second X interconnecting line.

15 3. An apparatus according to Claim 2, wherein the closed loop includes a switch circuit for selecting first to four Y interconnecting lines from the plurality of Y interconnecting lines so that:

a first terminal of the first Y interconnecting line is connected with a first terminal of the second Y interconnecting line,

a first terminal of the third Y interconnecting line is connected with a first output terminal,

25 a second terminal of the third Y interconnecting line is connected with a second terminal of the first Y interconnecting line,

a first terminal of the fourth Y
interconnecting line is connected with a second output
terminal, and

a second terminal of the fourth Y
5 interconnecting line is connected with a second
terminal of the second Y interconnecting line.

4. An apparatus according to Claim 1, wherein the
closed loop is sequentially formed at a constant pitch
10 on the matrix of the X and Y interconnecting lines
with a lapse of time.

5. An apparatus according to Claim 1, wherein on
the matrix of the X and Y interconnecting lines, a
15 closed loop formed timewise previously and a
subsequent closed loop formed after the closed loop
are selected to have an embedded structure.

6. An apparatus according to Claim 1, wherein the
20 coordinate input area is formed in a display panel.

7. An apparatus according to Claim 6, wherein the
apparatus further comprises a circuit for switching a
display drive mode using the matrix of the X and Y
25 interconnecting lines and a coordinate detection drive
mode using the matrix of the X and Y interconnecting
lines.

8. An apparatus according to Claim 6, wherein the display panel has a memory characteristic.

5 9. An apparatus according to Claim 8, wherein the display panel is an electrophoretic display panel.